

REMARKS

The Office Action dated September 14, 2005 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

In accordance with the foregoing, claims 1, 9, and 17 have been amended further defining the features of the present invention. Support for the amended recitations of independent claims 1, 9, and 17 may be found, for instance, on page 11, lines 16-17, of the Specification of the present invention. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-21 are pending and under consideration.

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, at page 2, claims 1, 5, 6, 7, 9, 13, 14, 15, 17, 20, and 21 were rejected under 35 U.S.C. § 102 as being anticipated by U. S. Patent No. 5,615,364 to Marks ("Marks") in view of U.S. Patent No. 5,649,089 to Kilner ("Kilner"). The Office Action took the position that Mark recites the original recitations of independent claims 1, 9, and 17 and Kilner describes the amended recitations of independent claims 1, 9, and 17. It is respectfully asserted that, for at least the reasons provided herein below, Marks and Kilner fail to teach or suggest the recitations of the pending claims. Reconsideration is requested.

Independent claim 1, upon which claims 2-8 are dependent, recites a method for providing persistency fault tolerant data stored in a database on a device in a networked

environment for an external application. The device has an active processor system and a standby processor system. The method includes maintaining a checksum for each record in an active database located in the active processor system, checking the checksum during initialization, providing an identical standby copy of an the active database located on the active processor system, on the standby processor system as a standby database, and monitoring the active processor for a failure, assuming control by the standby processor system when the failure is detected. The switching from the active database to the standby database is transparent to the external application and a magic number is kept to distinguish any tar and zipped file with the standby database.

Independent claim 9, upon which claims 10-16 are dependent, recites a system for providing persistency fault tolerant data stored in a database on a device in a networked environment for an external application, the device having an active processor system and a standby processor system. The system includes checksum means for maintaining a checksum for each record in an active database located in the active processor system and checking the checksum during initialization, standby means for providing an identical standby copy of the active database located on the active processor system, on the standby processor system as a standby database, monitor means for monitoring the active processor for a failure, control means for assuming control by the standby processor system when the failure is detected. The switching from the active database to the standby database is transparent to an external application and a magic number is kept to distinguish any tar and zipped file with the standby database.

Independent claim 17, upon which claims 18-21 are dependent, recites a device providing persistency fault tolerant data stored in a database and having an active processor system and a standby processor system. The device includes a checksum unit maintaining a checksum for each record in an active database located in the active processor system and checking the checksum during initialization, and a standby unit providing an identical standby copy of an the active database located on the active processor system, on the standby processor system as a standby database. The device also includes a monitor unit monitoring the active processor for a failure, and a control unit assuming control by the standby processor system when the failure is detected, wherein switching from the active database to the standby database is transparent to an external application and a magic number is kept to distinguish any tar and zipped file with the standby database.

As will be discussed below, the cited reference of Marks and Kilner fail to disclose or suggest the elements of any of the presently pending claims.

Marks generally describes a primary and backup database operation. Upon changes to the database, the primary and backup communication agents communicate with each other to automatically update the backup database. See column 3, lines 1-15. If malfunction occurs, the backup database takes over. See column 3, lines 15-20.

Also, Marks describes that backup communications are synchronized to primary communications without any manual initialization or re-inputting of any data. See column 4, lines 59-63. On page 5 of the Office Action, it is contended that because

Marks describes that the database is transparent to the user and the synchronization between the primary database and the backup database is performed automatically, Marks teaches “wherein switching from the active database to the standby database is transparent to the external application,” as recited in independent claims 1, 9, and 17.

In turn, Kilner describes a redundant controller system having an active controller 112 with an active database and a standby controller 115 with a standby database. See column 2, lines 56-67. The system maintains a cumulative checksum of the entire database in a network controller 112 for substantially real time tracking changes to a database by providing a record checksum for a record and incorporating uniquely and reversibly the record checksum for the record into a cumulative checksum for the database. See column 3, lines 51-64.

In addition, Kilner describes a method of updating a standby database, in which, at step 300 an initialization sequence is triggered, and at step 302, the network controller loads or transfers the database from permanent storage. See column 4, lines 55-67. At step 304, a V_CRC is set equal to A_CRC, which is representative of the CRC the active controller expects the standby controller’s database to be, based on the last update in the system.

However, neither Marks nor Kilner, individually or combine, teach or suggest, “switching from the active database to the standby database is transparent to the external application and a magic number is kept to distinguish any tar and zipped file with the standby database,” as recited in independent claims 1, 9, and 17. Although it appears that

Marks provides a backup database, Marks is silent as to teaching or suggesting that a number is kept to distinguish any tar and zipped file with the backup database as in the present invention. Similarly, Kilner is silent as to teaching or suggesting that in the standby database described therein, the switching from the active database to the standby database is transparent to an external application and a magic number may be kept to distinguish any tar and zipped file with the standby database. Accordingly, Applicants respectfully assert that Marks and Kilner, individually or combined, fail to teach or suggest all the recitations of independent claims 1, 9, and 17.

Accordingly, in view of the foregoing, it is respectfully requested that independent claims 1, 9, and 17 and related dependent claims be allowed.

In the Office Action, at page 4, claims 2-4, 10-12, 18, and 19 were rejected under 35 U.S.C. § 103 as being unpatentable over Marks, Kilner, and U.S. Patent No. 6,411,969 to Tam ("Tam"). The Office Action took the position that Marks, Kilner, and Tam disclose all the aspects of dependent claims 2-4, 10-12, 18, and 19. It is respectfully asserted that, for at least the reasons provided herein below, Marks, Kilner, and Tam fail to teach or suggest the recitations of the pending claims. Reconsideration is requested.

Dependent claims 2-4 depend from independent claim 1 and dependent claims 10-12 depend from independent claim 9. Also, dependent claims 18 and 19 depend from independent claim 17. Because the combination of Marks, Kilner, and Tam must teach all the recitations of the base claim and any intervening claims of dependent claims 2-4,

10-12, 18, and 19, the arguments presented above supporting the patentability of independent claims 1, 9, and 17 over Marks and Kilner are incorporated herein.

Tam generally describes a method for developing back-up copies of a source database by providing incremental and accumulate dump commands from various multiple-Users which enable a selection of certain files which are identified independently of time-factor for dumping selectively either onto a separate destination medium of disk or tape. However, similarly to Marks and Kilner, Tam does not teach or suggest, at least, “switching from the active database to the standby database is transparent to an external application and a magic number is kept to distinguish any tar and zipped file with the standby database,” as recited in independent claims 1, 9, and 17.

Although Tam provides that a compare operation is performed, in which a set of steps that is performed by DMUTILITY after each backup session to validate that the data saved on disk or tape is free from block checksum, nothing in Tam describes that the enhanced system described therein provides that the switching from an active database to a standby database may be transparent and that a magic number may be kept to distinguish any tar and zipped file with the standby database, as in the present invention. Instead, Tam provides a different application of reducing total back-up time of data.

The descriptions of the system and method of Marks, Kilner, and Tam do not broach the concept of providing a method and apparatus to keeping a magic number to distinguish any tar and zipped file with the standby database, in accordance with an aspect of the present invention. Thus, even if Marks, Kilner, and Tam are combined as

proposed in the Office Action, Applicants respectfully assert that a combination thereof would fail to teach or suggest all the recitations of independent claims 1, 9, and 17.

Accordingly, in view of the foregoing, it is respectfully requested that independent claims 1, 9, and 17 and related dependent claims be allowed.

Furthermore, in the Office Action, at page 5, claims 8 and 16 were rejected under 35 U.S.C. § 103 as being unpatentable over Marks, Kilner, U.S. Patent No. 5,317,742 to Bapat (“Bapat”), and publication “Structure of Management Information Version 2(SMIV2)” by McCloghrie et al. (“McCloghrie”). The Office Action took the position that a combination of Marks, Kilner, Bapat, and McCloghrie disclose all the aspects of dependent claims 8 and 16. It is respectfully asserted that, for at least the reasons provided herein below, Marks, Kilner, Bapat, and McCloghrie fail to teach or suggest the recitations of the pending claims. Reconsideration is requested.

Dependent claim 8 depends from independent claim 1 and dependent claim 16 depends from independent claim 9. Because the combination of Marks, Kilner, Bapat, and McCloghrie must teach, individually or combined, all the recitations of the base claim and any intervening claims of dependent claims 8 and 16, the arguments presented above supporting the patentability of independent claims 1 and 9 over Marks and Kilner are incorporated herein.

Bapat generally describes a Structure of Management Information (SMI) translated to a schema definition which is used to design the formats and templates of

data structures within a database, within which actual information content will be stored. See column 7, lines 59-64. In turn, McCloghrie generally describes Internet protocol standards. However, Bapat and McCloghrie do not cure the deficiencies of Marks and Kilner, and, therefore, a combination thereof fails to teach or suggest all the recitations of independent claims 1 and 9. For instance, similarly to Marks and Kilner, Bapat and McCloghrie are silent as to teaching or suggesting, for instance, “switching from the active database to the standby database is transparent to an external application and a magic number is kept to distinguish any tar and zipped file with the standby database,” as recited in independent claims 1 and 9.

A combination of Marks, Kilner, Bapat, and McCloghrie would be devoid of any teaching or suggestion providing the magic number recitations of independent claims 1 and 9. Thus, Applicants respectfully assert that a combination of Marks, Kilner, Bapat, and McCloghrie fails to teach or suggest all the recitations of independent claims 1 and 9.

Accordingly, in view of the foregoing, it is respectfully requested that independent claims 1 and 9 and related dependent claims 8 and 16 be allowed.

CONCLUSION:

In view of the above, Applicants respectfully submit that the claimed invention recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicants further submit that the subject matter is more than sufficient to render the

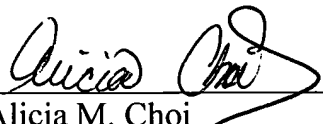
claimed invention unobvious to a person of skill in the art. Applicants therefore respectfully request that each of claims 1-21 be found allowable and that this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time.

Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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